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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/783,601  
Filing Date: February 20, 2004  
Appellant(s): CAMP ET AL.

William O. Camp Jr. et al.  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 11/26/07 appealing from the Office action  
mailed 06/12/07

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### **Claim Rejections - 35 USC § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 6-13, 25, 26 and 29 - 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canova (US 2003, 1037495 A1) in view of Brosnan (6977645 B2).

**As to claims 1 & 13** Canova discloses a portable electronic device, comprising: (Fig. 9 a hand held computer 100, [0042]) a housing (fig. 3-9 (100)); a display integrated with the housing (Fig. 3- 9 (114), [0019]); a thumb-operable input device positioned on a side of the housing; (Fig.9 -6 (111,119) [0019], [0027]) an indicator on the display operatively associated with the thumb-operable input device (116) (Fig.9 [0024], [0038]).

Conva doesn't teach the indicator that highlights menu items.

On other hand, Brosnnan teach a highlights bar (16), where a user highlights a particular one of the menu items (col.3 lines 9-15 col.4 lines 34, col. 4 lines 44-45, fig 1A (16)).

Therefore, would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Canova's handheld computer with Brosnan's a bar which highlight menu, because this will provide a user with a visual indicator to easily see information.

**As to claim 6**, Canova as modified by Brosnan teaches wherein the thumb-operable input device comprises: a slot (Fig. 4 (119)); and a bar (Fig.9 (119)) configured to slide in the slot to position the indicator on the display to highlight and/or select one of a plurality of menu items (Fig. 9 (119) [00 27]).

**AS to claims 7**, Canova teaches wherein the thumb-operable input device further comprises: [0039] a plurality of notches in the slot, each of the plurality of notches being associated with one of the plurality of menu items, wherein the bar is further configured to move in the slot between the notches to position the indicator on the display to highlight and/or select the associated menu item [0024], [0042]. It would be obvious switches (notches of (110)) are associated with the menu (116) because in order to select the menu one have to use the thumb wheel (119), [0038].

**As to claim 8**, Canova teaches sensor operatively associated with the bar and configured to detect movement of the bar in the slot; and a processor operatively associated with the sensor, the processor being [0027] configured to process the detected movement of the bar and move the indicator on the [0034] display between the menu items responsive to the processed movement.

**As to claim 9** Canova teaches wherein the thumb-operable input device further comprises a spring mechanism, the spring mechanism being configured to reposition the bar at an end of the slot between selections of menu items [0027].

**As to claim 10**, Canova teaches wherein the thumb-operable input device comprises at least one of a fingerprint sensor, touchpad or hinged bar, wherein the indicator is configured to move between menu items responsive to upward and/or downward movement on the fingerprint sensor, the touchpad or the hinged bar ([0022], [0031]).

**As to claim 11**, Canova teaches wherein the thumb-operable input device comprises a touchpad positioned on a side of the housing [0030], [0020].

**As to claims 12**, Canova teaches further comprising: a sensor operatively associated with the touchpad and configured to detect movement on the touchpad; and [0022] a processor operatively associated with the sensor, the processor being configured to process the detected movement on the touchpad and move the indicator on the display between the menu items responsive to the processed movement. [0003]].

**As to claims 25, 26, 29, 30, 31 and 32**, give the electronic device Canova's modified by Brosnan as discussed above in claims 1, 2, 6, 7, 9 and 10, the method of operating a portable electronic device as claimed in claims 25, 26, 29, 30, 31 and 32 is inevitable.

3. **Claims 2, 14 and 18-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Canova (US 2003/1037495) in view of Brosnan (US 6,977,645) as applied to claim 1 above, and further in view of Frederiksen (US 6,570,596).

**As to claims 2 & 14**, Canova further teaches the thumb-operable input device comprises at least one thumb position sensor [0027] and wherein the thumb position sensor is configured to detect a position of a thumb on the thumb-operable input device (Fig. 9 (111,119) [0027], [0028], [0019]).

However, Canova as modified by Brosnan does not teach the thumb-operable input device moving the indicator on the display between the menu items responsive to the position of the thumb on the thumb-operable input device.

Frederiksen teaches thumb-operable input device (i.e., navigation and selection key 10) moving the indicator on a display (3) between the menu items responsive to the position of the thumb on the thumb-operable input device (i.e., navigation and selection key 10) (Col. 2, lines 3-21 see Fig.4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made further modify the thumb-operable input device Canova as modified by Brosnan for moving the indicator on the display between the menu items responsive to the position of the thumb on the thumb-operable input device as taught by Frederiksen for the purpose of providing a user a visual indication of a selected item by the thumb-operable input device.

4. As to claim 18, the same rejection as claim 6 above.
5. As to claim 19, the same rejection as claim 7 above.
6. As to claim 20, the same rejection as claim 8 above.
7. As to claim 21, the same rejection as claim 9 above.
8. As to claim 22, the same rejection as claim 10 above.

9. As to claim 23, the same rejection as claim 11 above.

10. As to claim 24, the same rejection as claim 12 above.

**11. Claims 3, 4, 5, 15, 16, 17, 27 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Canova (US 2003/1037495) in view of Brosnan (US 6,977,645) as applied to claim 1 above, and further in view of Poloniemi et al. (EP 1113385 A2, submitted by applicant).

**As to claims 3, 4, 15 and 16**, Canova as modified by Brosnan does not teach a thumb movement sensor.

However, Poloniemi further teaches detecting movement via fingerprint analysis for the purpose of making operation of the electronic equipment's user interface more intuitive (Figs. 1-5; Col. 1, lines 1-8; Col. 5, line 20-Col. 7, line 29).

It would have been obvious to one having ordinary skill in the art at the time the invention was made further configure the thumb movement sensor of Canova's modified by Brosnan for detecting movement via fingerprint analysis as taught by Poloniemi for the purpose of making operation of the electronic equipment's user interface more intuitive as taught by Poloniemi.

**As to claims 5 and 17**, Poloniemi, the thumb movement sensor being further configured to detect distortion of a fingerprint on the thumb-operable input device and wherein the processor (col.6 lines 5-15) being further configured to process the detected distortion of the fingerprint and highlight and/or select menu items on the



display responsive to the detected distortion would have been obvious since Poloniemi teaches these features (Figs. 1-5; Col. 1, lines 1-8; Col. 5, line 20-Col. 7, line 29).

**As to claims 27 and 28,** The same rejection applies as to claims 4 and 5 above.

**(10) Response to Argument**

**A. Independent claims 1, 12 and 25.**

Appellant argues that nothing in Canova discusses one handheld operation of the handheld device using the thumb. The Examiner strongly disagrees with Appellant's assertion. Canova clearly teaches that the portable electronic device (fig.9) having a thumb operable input device (see, fig.9 (119), [0038] "when switch 119 is pressed such as by the thumb of the user as computer 100 is held, entry area 118 is displayed").

On page 6, Appellant also states that nothing in Brosna discusses positioning the motion detection device 20 on a side portion of the housing so that it is thumb operable. Canova is the one which is cited to teach the thumb operable input device and not Brosana. Brosana is cited to teach to highlight and /or select menu items on the display by a finger.

Appellant further argues that either Canova or Brosna disclose or suggests a thumb operable input device positioned on a side of the housing or an indicator on the display operatively associated with the thumb operable input device, the indicator being positioned on the display to highlight and /or select menu item on the display responsive to input received at the thumb operable input device.

Examiner again disagrees with Appellant's argument. Canova teaches thumb operable input device positioned on a side of the housing (see, fig.9 (119)) or an indicator on the display operatively associated with the thumb operable input device ([0027]). Brosana is cited to teach that it is well known for a handheld device in which the indicator being positioned on the display to highlight and /or select menu item on the display responsive to input by a finger (see, Abstract, col.2, lines 51-57, col.4, lines 44-59).

Therefore, the combination of Canova and Brosna clearly teach Appellant's claimed invention. Here Appellant attacks references individually in a 103 rejection. Appellant cannot show non-obviousness by attacking references individually where as here the rejection are based on combination of references. **In re Keller, 208 USPQ 871 (CCPA 1981).**

As to the issue of no motivation to combine the cited references. The motivation to combine Canova's handheld device which uses a thumb to input information with Brosans's highlighting or menu selection function would provide one skill in the art with more visibility and easy to see the selected item on the display.

Furthermore, the test for obviousness is simply what the reference make obvious to one of ordinary skill in the art. See the Board decetions:

**In re Bozek, 163 USPQ 545. (CCPA 1969);**

**In re Richman 165 USPQ 509,(CCPA1970);**

**In re Beckum, 169 USPQ 47 (CCPA 1971);**

**In re Sneed, 710 F.2d 1544,218 USPQ 385.**

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Emmanuel Hailemariam

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